Office Action Summary	Application No.	Applicant(s)	
	10/800,915	WERNERSSON, HAKAN	
	Examiner	Art Unit	
	BRANON C. PAINTER	3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01/09/08 & 01/10/08*.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on 01/09/08 and 01/10/08 are being considered by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Moriau et al. (U.S. Patent No. 6,006,486).

5. Regarding claim 1, Moriau et al. discloses a joint a joint having all of the applicant's claimed structure, including:

   a. "A glueless panel joint ("The floor covering preferably is formed by joining the floor panels into each other free of glue…It is, however, clear that a gluing between tongue and groove is not excluded," column 3, line 66 – column 4,

line 6)…wherein edges of said panels are provided with a core" ("core" 8, Fig. 8).

b. "…means for mechanically locking said panels toward one another via interacting locking surfaces…" ("tongue" 9 and "groove" 10, Fig. 22).

c. "…edges further comprising friction enhancing means." (the risen fibers of the panel core discussed below are considered to be the friction enhancing means).

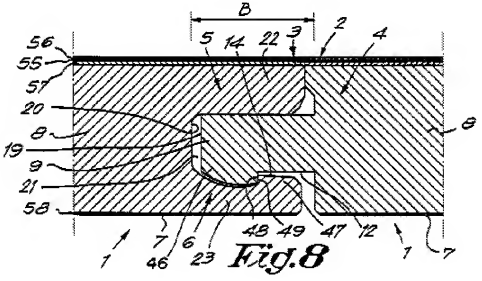
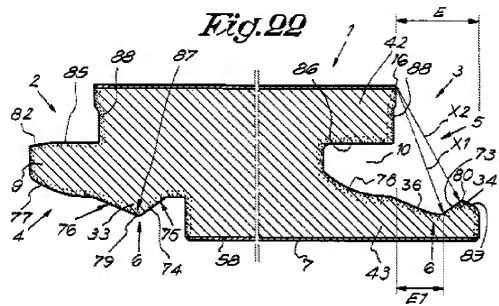


Fig.8

Reproduced from Moriau et al. (U.S. Patent No. 6,006,486)



Reproduced from Moriau et al. (U.S. Patent No. 6,006,486)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 2-6 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moriau et al. (U.S. Patent No. 6,006,486) in view of Palsson (International Publication Number WO 01/75247).
2. Regarding claims 1-6:
    a. Moriau et al. discloses a joint as set forth above [claim 1], further comprising: edges ("tongue" 9 and "groove" 10, Fig. 22) provided with a rough surface [claim 3]; a core made of a wood-based material wherein the rough surface is achieved by wetting with a liquid causing the fiber of the core to rise ("for the core use shall be made of so-called HDF board (high density fiberboard) or MDF (Medium Density Fiberboard) which is highly compressed ground wood particles and binder material," column 3, lines 32-35) [claim 4]; and wherein the liquid is a lacquer binding agent ("floor panels 1 are treated...with a surface densifying agent...which is chosen from the following series of products:...lacquers," column 13, lines 16-20) [claims 5 and 6].
    b. The examiner notes that, with regard to claim 4, while Moriau et al. does not explicitly state that the application of liquid lacquer to the joint surface causes the fiber of the core to rise, the rising of core fibers is inherently caused by the application of a wetting agent (in this case, liquid lacquer).
    c. The examiner notes that claim 4 is considered to be a product-by-process claim due to the phrase "rough surface is achieved by wetting...rise." The patentability of the product does not depend on its method of production. Determination of patentability is based on the product itself. See MPEP

2113. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985).

d. The examiner further notes that, with regard to claim 5, while Moriau et al. does not explicitly state that the lacquer is used as a binding agent, it is inherently capable of performing the functions of a binding agent.

e. Moriau et al. does not expressly disclose that the force needed to overcome static friction along the joint between two assembled panels is larger than 100N per meter length [claim 2].

f. Palsson discloses a floor joint where "The force needed to overcome the static friction along the joint between the two completely assembled male and female joining members is...suitably larger than 100N per meter of joint length" (page 3, paragraph 5) [claim 2]. Constructing a joint with high separation force as taught by Palsson provides a stronger, more reliable connection between panels.

g. Moriau et al. and Palsson are analogous art because both are from the field of endeavor of interlocking floor panels.

h. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the separation force requirements taught by Palsson to the joint of Moriau et al. in order to create a stronger connection between adjacent panels.

8. Regarding claims 14-16:

    a. Moriau et al. discloses a joint as set forth above [claim 1], further comprising: edges provided with a rough surface [claim 3] wherein the edges are provided with splines [claim 14] that are arranged at an angle toward the edge extension [claim 15] ("tongue" 9 and "groove" 10, Fig. 22); and a joint with a jagged profile arranged between the edge surfaces [claim 16] ("tongue" 9 and "groove" 10, Fig. 22).

9. Regarding claim 17:

    a. Moriau et al. in view of Palsson disclose a joint as set forth above.

    b. Moriau et al. in view of Palsson does not expressly disclose that the separation force is larger than 1000N per meter.

    c. It would have been obvious to modify the separation force of the panels to provide panels capable of withstanding any and all forces the panels may encounter during use.

    d. Moriau et al. in view of Palsson discloses the claimed invention except for a separation force of 1000N per meter. It would have been obvious to one having ordinary skill in the art at the time the invention was made to produce the panels of the combination with a separation force sufficient to prevent panels from separating under duress, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *MPEP 2144.05*.

e. The examiner further notes that it would have been an obvious matter of design choice to modify the separation force of a panel joint by making it greater than 1000N, since applicant has not disclosed that withstanding this specific separation force solves any stated problem or is for any particular purpose and it appears that a panel joint which withstands the separation forces encountered in normal use would perform equally well.

10. Claims 1, 2, and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colada et al. (U.S. Pub. No. 2003/0046891) in view of Palsson (International Publication Number WO 01/75247).

a. Colada et al. discloses a joint having all of the structure of claim 1, including:

i. "A panel joint… wherein edges of said panels are provided with a core" (Fig. 29).

ii. "…means for mechanically locking said panels toward one another via interacting locking surfaces…" ("key" 6200 and "lock" 6150, Fig. 29).

iii. "…edges further comprising friction enhancing means." ("first and second compressible regions" 6310 and 6320, Fig. 29).

b. Colada et al. further discloses: a joint where predetermined surfaces are coated with a high friction polymer ("first and second compressible regions" 6310 and 6320, Fig. 29) [claim 7]; wherein the polymer is a natural rubber [claim 8] or synthetic rubber [claim 9] such as silicon rubber [claim 10] ("First compressible region 6310 and second compressible region 6320 may be

constructed of compressible materials, such as polyurethane elastomeric foam, rubber, rubber foam, or silicon rubber," page 13, paragraph 235).

c. With regard to claim 8, the examiner notes that it would be obvious to use natural rubber, since natural rubber is a specific type of rubber, which was disclosed by Colada et al.

d. Furthermore, the examiner notes that Colada et al. in view of Palsson discloses the claimed invention except for natural rubber. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the compressible regions from natural rubber, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

e. Colada et al. does not expressly disclose that the force needed to overcome static friction along the joint between two assembled panels is larger than 100N per meter length [claim 2].

f. Palsson discloses a floor joint where "The force needed to overcome the static friction along the joint between the two completely assembled male and female joining members is...suitably larger than 100N per meter of joint length" (page 3, paragraph 5) [claim 2]. Constructing a joint with high separation force as taught by Palsson provides a stronger, more reliable connection between panels.

g. Colada et al. and Palsson are analogous art because both are from the field of endeavor of interlocking floor panels.

h. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the separation force requirements taught by Palsson to the joint of Colada et al. in order to create a stronger connection between adjacent panels.

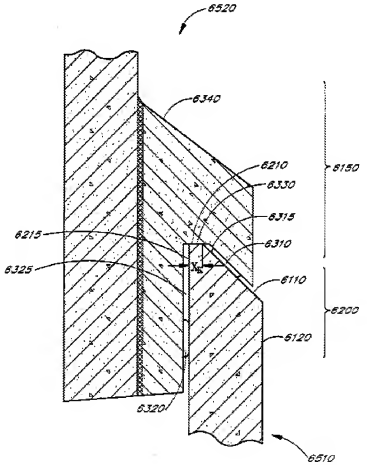


FIG. 29

Reproduced from U.S. Pub. No. 2003/0046891

11. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moriau et al. (U.S. Patent No. 6,006,486) in view of Palsson (International Publication Number WO 01/75247) as applied to claims 2-6 and 14-16 above, and further in view of Shimmin et al. (U.S. Patent No. 4,518,641).

    a. Moriau et al. in view of Palsson discloses a joint as set forth above [claim 2].

    b. Moriau et al. does not expressly disclose: the rough surface is comprised of particles bonded to the edges [claim 11]; the particles range in size from 50 microns to 2 mm [claim 12]; or that the particles are harder than the core material [claim 13].

    c. Shimmin et al. discloses a surface coating of rounded quartz sand particles ("non-slip particles" 22, Fig. 2) [claim 11] with a size range of 0.3 mm to 2.0 mm ("The particles preferably lie...especially in the range 0.3 mm to 2.0 mm," column 4, lines 11-13) [claim 12] that are harder than the fiberboard core material disclosed by Moriau et al. [claim 13]. Coating the joint surfaces of Moriau et al. with a particulate substance as taught by Shimmin et al. would decrease joint slippage, resulting in increased joint stability.

    d. Furthermore, the examiner takes OFFICIAL NOTICE that sand particles have a higher hardness index than fiberboard.

    e. Moriau et al. and Shimmin et al. are analogous art because both disclose surface treatments.

f. At the time of the invention, it would have been obvious replace the lacquer floor joint coating of Moriau et al. with the non-slip coating taught by Shimmin et al. in order to limit the movement between adjacent panels.

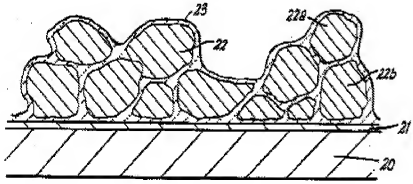


FIG. 2

Reproduced from U.S. Patent No. 4,518,641

Response to Arguments

12. Applicant's arguments filed 01/09/08 have been fully considered but they are not persuasive.

13. Applicant argues that Moriau et al. does not teach "edges further comprising friction enhancing means." However, as claims 3-6 show, Moriau et al. does disclose a core whose fibers are inherently raised due to the application of a lacquer. The risen fibers of this core provide a friction enhancing means along the edge of the tongue and groove, and therefore meet the claim limitations.

14. Applicant argues that Moriau et al. does not teach friction enhancing means that impede movement along the joint. However, the examiner notes that any friction

enhancing means will impede movement in all directions, including the direction along the joint.

15. Applicant additionally claims that the examiner appears to believe the tongue and groove are the friction enhancing means. However, the examiner's rejection of claim 1 under Moriau et al. clearly states that the tongue and groove are considered to be the "means for mechanically locking" of applicant's invention, and that the raised fibers of the core are considered to be the "friction enhancing means" of the edges (in examiner's first action, the "friction enhancing means" was equally clearly mapped to glue between the tongue and groove).

16. Applicant claims that the examiner equates lacquer to the friction enhancing material, and argues that Moriau et al. does not teach that fiber will rise is subjected to a lacquer. However, the examiner considers the risen fibers produced by the lacquer coating to be the friction enhancing means. The examiner notes, again, that the application of liquid lacquer wetting agent to the edge surfaces inherently causes the fibers of the core to rise, resulting in a friction-enhanced surface. The examiner further provides evidence that the fibers of a wood-based core, when wetted with a lacquer, will inherently be caused to rise as taught by Bar et al. (U.S. Patent No. 6,858,261): "When water-based lacquers are used, the problem arises that in the region of an initially smooth wooden surface the penetration of water causes certain regions or fibers in the wood, which in themselves are uniformly structured, to rise up because the entering water makes the uniformly structured regions swell and/or forces them apart" (column 1, lines 33-38); "The same or at

least similar effects appear in other absorbent materials that comprise a plurality of regions and/or fibers that are in themselves uniformly structured. The effects are also produced not only by water-based lacquers but in general by coating agents and/or impregnation agents that are water-based or can be diluted by water, for instance scumbles, mordants, flame-retardant coatings and/or other protective and impregnation agents that are applied to the surface of the object to be treated. Furthermore, the effects are produced not only by coating and/or impregnation agents that contain water, but also by agents containing other solvents and/or dilution fluids that are to be driven out and/or bound during drying" (column 1, lines 44-56).

17. Furthermore, the examiner notes that claim 4 is directed to an apparatus, and the phrase "rough surface is achieved by wetting the predetermined surfaces of the edge with a liquid thereby causing fiber of the core to rise" attempts to claim a method, and thus is considered a product-by-process statement. Any rough surface, regardless of its method of production, meets the claim limitations.

18. Applicant argues that Palsson does not teach a force needed to overcome static friction larger than 100N by stating "Palsson...certainly does not teach the recited feature of previous claim 2 (remarks, page 13). However, applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

19. Applicant goes on to argue, regarding the combination of Colada and Palsson, that the examiner "misses the point of the present invention," as Palsson teaches means to prevent a separation force, while applicant's invention is a means to increase the friction perpendicular to the separation force to prevent panels from sliding along the edge. It appears this argument is an attempt to undermine the Palsson reference. However, the examiner notes that in claims 2 and 17, what is claimed is that "the force needed to overcome the static friction along the joint between two assembled panels is larger than 100N/1000N per meter of joint length," and what Palsson discloses is "The force needed to overcome the static friction along the joint between two completely assembled male and female joining members is...suitably larger than 100N per meter of joint length" (page 3, paragraph 5). The nearly identical language between what is claimed and Palsson leaves little doubt that Palsson does, in fact, disclose the claimed feature.
20. Applicant argues that Colada fails to teach friction enhancing means because the compressible regions 6310 and 6320 are used to lock the planks together. However, this is yet another mischaracterization of the reference and the examiner's rejection, as it is clearly stated in the rejection that the means for locking panels together are the tongue and groove structure of adjacent panels ("key" 6200 and "lock" 6150, Fig. 29), a connection that is enhanced by friction enhancing compressible regions ("compressible regions" 6310"and 6320, Fig. 29). The compressible regions are "added to the embodiment to seal lock assembly 6150

with key 6200, and to absorb lateral movement" (paragraph 238), i.e. provide frictional means to limit movement between the panels.

21. Applicant further argues that friction enhancing means are not disclosed since Colada states the embodiment is designed to allow for "lateral compensation for installation on non-planar walls" (paragraph 238). However, the examiner points out that claiming "friction enhancing means intended for impeding assembled panels from sliding in a direction along the edges" simply states that the friction between panels will be enhanced by the addition of this "friction enhancing means" (i.e., made greater than it would be without the friction enhancing means), and thus the sliding of panels would be impeded (not necessarily completely prevented). It is exceedingly clear that adding compressible regions of, for instance, rubber to the panels of Colada would result in greater friction between the panels than if the panels lacked the compressible regions, impeding the sliding of panels. The claim limitations have been met.

22. Applicant argues that, regarding claim 8, it is not obvious to use natural rubber "merely because rubber foam or silicon rubber are mentioned." The examiner reminds applicant that Colada also discloses the use of rubber ("compressible materials, such as…rubber, rubber foam, or silicon rubber," paragraph 235), and that natural rubber is a subset of rubber. Furthermore, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

23. In response to applicant's argument that Shimmin is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Shimmin is pertinent to the particular problem of providing a surface with a coating that results in the enhancement of friction. While Moriau provides a coating that causes the fibers of the core to rise, enhancing friction as discussed above, Shimmin shows that it is also known to coat a surface with particles bonded to said surface.

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The examiner notes that Kesavan et al. (U.S. Patent No. 5,971,113) teaches that "quartz,...zirconium sand, and the like" (column 2, lines 51-52) have a Mohs hardness of 8.0 to 9.5. Furthermore, Kapgan (U.S. Patent No. 6,846,226) teaches that wood has a Mohs hardness less that 5.5 (column 3, lines 12-13). Since 5.5 is less than 8.0, these references teach that the quartz sand of Shimmin et al. is harder than the wood-based fiberboard of Moriau et al.
25. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

26. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANON C. PAINTER whose telephone number is (571)270-3110. The examiner can normally be reached on Mon-Fri 7:30AM-5:00PM, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on (571) 272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. C. P./
Examiner, Art Unit 3633
02/26/08

/Brian E. Glessner/
Supervisory Patent Examiner, Art Unit 3633